

REMARKS

Applicant has cancelled previously pending Claims 10-14 and added new Claims 16-25, with Claims 16, 22, and 24 being in independent form. Applicant has also provided a SECOND substitute specification. Applicant has also amended all of the drawings starting with Figure 1a) and ending with Figure 3b). No new matter has been added.

I. Formal Matters

1. Per the objection to the title of the invention on page 2 of the Final Office Action, Applicant has amended the title of the invention in the substitute specification as follows:

---DEVICE FOR ACTIVE-SENSOR SCANNING OF A MAGNETIZED TIRE WITH ENCODER---

Withdrawal of the objection is respectfully requested.

2. Per the objection to the disclosure of the invention on page 2 of the Final Office Action, Applicant has amended the specification as shown in the attached clean and marked-up copies of the SECOND substitute specification. Withdrawal of the objection is respectfully requested.

3. Per the objection to the drawings of the invention on page 2 of the Final Office Action, Applicant has amended the drawings as shown in the replacement sheets attached to this paper. Withdrawal of the objection is respectfully requested.

With respect to “Fig 1a) – 1d)”, Applicant has identified each sensor unit embodiment with new figure identifiers “FIG. 1A”, “FIG. 1B”, “FIG. 1C”, and “FIG. 1D”. Applicant has also identified all elements shown in each of FIGS. 1A-1D with new reference numerals as shown in the replacement sheets. No new matter has been added.

With respect to “Fig. 2” “a)” and “b)”, Applicant has identified each sensor circuit embodiment with new figure identifiers “FIG. 2A” and “FIG. 2B”. Applicant has also identified all elements shown in FIGS. 2A and 2B with new reference numerals as shown in the replacement sheets. In conjunction with the proper identification of “FIG. 2A” and “FIG. 2B”, Applicant has provided an encoder element (50) for each respective sensor circuit. In conjunction with paragraph [0031] of the FIRST and SECOND substitute specifications, Applicant has added an air gap reference letter (G) and a magnetized tire element (75). In

conjunction with paragraph [0033] of the FIRST and SECOND substitute specification, Applicant has added reference numeral 32, which points to the trigger stage of the signal processing circuit. No new matter has been added.

With respect to “Fig. 3” “a)” and “b)”, Applicant has identified each signal current plot over time with new figure identifiers “FIG. 3A” and “FIG. 3B”. In conjunction with paragraph [0036] of the FIRST and SECOND substitute specifications, Applicant has added an output current amplitude range on the y-axis at 7mA and 15mA, as described in the specification, which teaches 11mA, plus or minus 4mA lift.

4. Claims 10-14 were objected to in the Final Office Action on page 3. Applicant has cancelled Claims 10-14, rendering the rejection moot. Withdrawal of the objection is respectfully requested.

II. The Claims Define Patentable Subject Matter

1. The Final Office Action rejected Claims 10-14 under 35. U.S.C. §103(a) as being unpatentable over DE 196 34 715 to Loreck et al. (“Loreck”) in view of U.S. Patent No. 5,153,513 to Adachi (“Adachi”). Applicant has cancelled Claims 10-14, rendering the rejection moot. However, Applicant has prepared remarks below in view of new Claims 16-25 in consideration of the applied art. In preparing the remarks, Applicant has obtained the English equivalent of Loreck (U.S. Patent No. 6,339,322). Applicant also respectfully points out that Loreck is under assignment to the assignee of the present invention.

Applicant agrees with the Final Office Action that Loreck shows an output signal being digital (pulses) instead of sinusoidal signals (see page 4, lines 12-13). In view of new independent Claims 16, 22, and 24, Applicant respectfully submits that Loreck is also completely silent to the teaching or suggestion of the detection of wheel speed and a dynamic deformation of an air gap between the sensor unit and the magnetic encoder. Support for this amendment can be found in the FIRST and SECOND substitute specifications at paragraphs [0013], [0026], [0027], [0030], [0031], [0033]-[0035], and [0037]. It appears that the only mention of an air gap in Loreck can be located at col. 4, line 9 and at col. 6, line 31. Neither instance in Loreck provides suggestion for the invention as claimed.

Adachi, which is the other prior art reference applied in a formal rejection to cancelled Claims 10-14, is also silent to a teaching or suggestion of the invention as claimed. Adachi does

not provide a suggestion for the detection of a dynamic deformation of an air gap between the sensor unit and magnetic decoder. Adachi's only intended manner for operation is to measure the rotational speed of an internal combustion engine (see: col. 1, lines 15-16, col. 2, lines 30-32, and col. 3, lines 27-28).

Thus, in view of the applied art to cancelled Claims 10-14, Applicant respectfully submits that new Claims 16-25 are in allowable form.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 503145, under Order No. 209565-82182 from which the undersigned is authorized to draw.

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Respectfully submitted,

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